

STATUS OF THE GENUS *OCEANIDA* DEFOLIN
(GASTROPODA: EULIMIDAE),
WITH A DESCRIPTION OF A NEW SPECIES

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Abstract.—Monotypic genera *Spiroclimax* Mörch, 1875, and *Athleenia* Bartsch, 1946, are later synonyms of *Oceanida* DeFolin, 1871; type-species of both genera are identical to *O. graduata*, the type-species of *Oceanida*. All were described from the tropical western Atlantic. *Oceandia inglei* n. sp. from Florida and North Carolina differs from *O. graduata* by lacking tabulate shoulders at posterior angles of spiral whorls. Differences between Eulimidae (preferred to Melanellidae) and Stiliferidae are unclear, indicating the latter should be combined with the former family.

Three originally monotypic genera have been erected to contain the single species most recently known as *Athleenia burryi* Bartsch, 1946. The earliest available name for the genus appears to be *Oceanida* DeFolin, 1871. Another species, presently known from Florida and North Carolina, is previously unnamed and is described herein.

Specimens were examined from collections of the Hourglass Cruises off west Florida, in samples taken during faunal studies near the Florida Power and Light nuclear facility at Hutchinson Island, Florida east coast, and in other programs conducted by the Florida Department of Natural Resources (FDNR) Marine Research Laboratory. Most specimens are housed in the FDNR invertebrate reference collection (catalogue prefix FSBC I) at St. Petersburg. Other specimens were examined from collections of the National Museum of Natural History (USNM), Washington, D.C., the Steger collection, now in the Delaware Museum of Natural History (DMNH), Greenville, Delaware, and additional material collected at Hutchinson Island by Applied Biology, Inc., Jensen Beach, Florida. Specimens were deposited in molluscan collections at the British Museum (Natural History) (BMNH), London, and the Museum of Comparative Zoology (MCZ), Harvard University, Cambridge, Massachusetts.

Genus *Oceanida* DeFolin, 1871

Oceanida DeFolin, 1871:264 (type-species *Oceanida graduata* DeFolin, 1871, by monotypy).—Kisch, 1959:107.

Spiroclimax Mörch, 1875:168 (type-species *Spiroclimax scalaris* Mörch, 1875, by monotypy).

Chrysallida (*Oceanida*): Thiele, 1929:232.

Odostomia (*Spiroclimax*): Thiele, 1929:235.

Athleenia Bartsch, 1946:30 (type-species *Athleenia burryi* Bartsch, 1946, by monotypy).—Abbott, 1974:130.

Diagnosis.—Shells small, with maximum lengths slightly less than 3.0 mm, glassy, smooth. Embryonic whorls tapered, rather slender, of about 3½–4 whorls, each bearing many very fine axial riblets. Postembryonic whorls broader than long, expanding rather rapidly, constricted at sutures, with about one weak growth interruption per whorl. Apertures tear-shaped, bordered by simple columella and outer lip.

Remarks.—*Oceanida* was introduced without formal description to contain *O. graduata*, a species described from Guadeloupe, West Indies, in the same paper by DeFolin (1871). No higher classification was suggested by DeFolin, but Thiele (1929) considered *Oceanida* a subgenus of the pyramidellid genus *Chrysallida* Carpenter, 1857. Kisch (1959) treated *Oceanida* as a genus of Chemnitzidae (= Pyramidellidae) in a review of DeFolin's taxa of that family. Both Thiele and Kisch recognized *O. graduata* as the type-species of *Oceanida*.

Four years after DeFolin introduced *Oceanida*, Mörch (1875) erected *Spiroclimax* for *S. scalaris*, described without illustration from a single specimen collected at St. Thomas, West Indies. Mörch considered *Spiroclimax* a genus of Pyramidellidae. Thiele (1929:235, fig. 240) subsequently illustrated *S. scalaris* as the type-species of *Spiroclimax*, which he considered a subgenus of *Odostomia* Fleming, 1817, another pyramidellid genus. Like *Oceanida*, *Spiroclimax* seems to have escaped further notice as a component of western Atlantic fauna.

More recently, Bartsch (1946) proposed *Athleenia* to contain *A. burryi*, which he thought to be a new species from deep water off south Florida. He assigned the genus to Stiliferidae.

At my request, Dr. Anders Waren examined the types of *Oceanida graduata* and *Spiroclimax scalaris* at the Muséum National d'Histoire Naturelle, Paris, and the Universitetets Zoologiske Museum, Copenhagen, respectively. We have both examined the holotype of *Athleenia burryi* (USNM 573616). According to Dr. Waren (personal communication), type-specimens of all three proposed names are identical and constitute a single species.

Assignment of *Oceanida* to Pyramidellidae by Mörch (as *Spiroclimax*), Thiele, and Kisch seems inappropriate as the shells bear no features relating them to that family. Abbott (1974) followed Bartsch in placing *Athleenia* in Stiliferidae, but also suggested that Rissoidae might be more appropriate, apparently noting the same "*forma Rissoae vitreae*" mentioned by Mörch in his description of *Spiroclimax*. I have found no genera of Rissoidae resembling *Oceanida*, but aperture and spire shape are suggestive of certain Rissoinidae, especially *Crepidacella* Guppy, 1867. The resemblance is

superficial, however; species of *Crepitacella* bear marked axial sculpture, a broad anal fasciole, and a strong basal fold extending into the aperture, all lacking in *Oceanida*.

Shells of *Oceanida* seem similar to those of *Turveria* Berry, 1956, a monotypic genus erected in Stiliferidae to contain *T. encopendema*, a species parasitic on *Encope* echinoids in western Mexico. The species was illustrated in two line drawings by Berry (1956: fig. 2) and another, probably redrawn from Berry, in Keen (1971), but I have been unable to obtain shells or photographs for comparison.

Mörch, Thiele, Berry, and Abbott, in aforementioned papers, assigned synonyms of *Oceanida* and species in genera similar to that genus to Stiliferidae. Bartsch (1917) included *Stilifer* Broderip and Sowerby, 1832, and other customarily stiliferid genera in his monograph of east Pacific Melanellidae, but later assigned *Athleenia* to Stiliferidae. Keen (1971) continued to include east Pacific stiliferid genera in Melanellidae. Most members of both families are parasitic on echinoderms. Typical genera (e.g., *Stilifer*, *Melanella*) are obviously disparate, the first having thin, rotund shells with mucronate embryonic whorls, while the other has slender, elongate, relatively thick shells with glassy, polished surfaces and evenly tapered embryonic whorls. Genera differing more than slightly from the *Melanella* design (e.g., *Pelseneeria* Kohler and Vaney, 1908; *Mucronalia* A. Adams, 1860; "*Athleenia*" Bartsch, 1946) tend to be assigned to Stiliferidae. Berry (1956) seemed equally perplexed regarding familial assignment for his *Turveria*, opting for Stiliferidae because the shell possessed a "papilliform apex." The apex he figured, however, resembles those found on *Oceanida* species, which seem little more related to *Stilifer* than to some melanellids.

Problems have also arisen in selecting the proper name for the family containing *Melanella* Bowdich, 1822, primarily because of confusion regarding the supposed synonymous relationship between that genus and *Eulima* Risso, 1826, resulting in replacement of Eulimidae H. and A. Adams, 1853 (*fide* Golikov and Starobogatov, 1975) with Melanellidae Bartsch, 1917 (*fide* Abbott, 1974). Little would be accomplished by enumerating the many references maintaining this synonymy, but careful attention to differences separating genera in this family indicates that *Melanella* and *Eulima* are not synonymous (see Lyons, 1977, for examples of both genera). However, given that such synonymy could be demonstrated, Eulimidae remains the correct name for the family even though its type-genus was proposed later than that of Melanellidae (see International Code of Zoological Nomenclature, XV International Congress, 1964, Art. 64). Mayr (1969:356) argues effectively for retention of early familial appellations regardless of subsequent type-genus changes.

Because no well defined boundaries seem to exist between Eulimidae and

Stiliferidae, it would appear that they should be combined. Since Stiliferidae (originally Styliiferidae) H. and A. Adams, 1853 (*vide* Abbott, 1974) and Eulimidae were described at the same time, subsequent selection is a matter of reviewer preference. The more diverse and abundant Eulimidae is herein preferred.

Oceanida graduata DeFolin, 1871

Figs. 1-3

Oceanida graduata DeFolin, 1871:264, pl. 24, fig. 6.—Kisch, 1959:107.

Spiroclimax scalaris Mörch, 1875:168.

Chrysallida (*Oceanida*) *graduata*: Thiele, 1929:232.

Odostomia (*Spiroclimax*) *scalaris*: Thiele, 1929:235, fig. 240.

Athleenia burryi Bartsch, 1946:30, fig. 1.—Abbott, 1974:131, fig. 1433.

Description.—Shell small, to about 2.8 mm length, with approximately 3½ very finely ribbed embryonic whorls, followed by approximately 5½ smooth, translucent, posteriorly tabulated postembryonic whorls. Aperture extended and rounded anteriorly; outer lip slightly compressed, extending nearly parallel to longitudinal axis of shell.

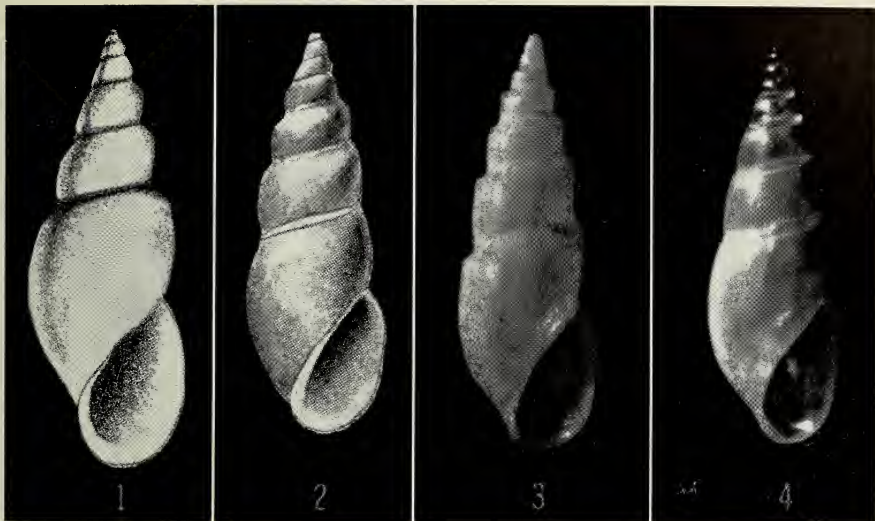
Material examined.—FLORIDA: Holotype of *Athleenia burryi*, 2.1 mm; off Carysfort Reef Light, Monroe County, 400 ft (122 m); USNM 573616.—1, 2.8 mm; ¼ mi off Cape Florida Light, Dade County, 6 m; FSBC I 18166.—BAHAMAS: 1, 2.2 mm; Gibson Cay, Andros, beach drift; FSBC I 11748.—2, 2.1, 2.7 mm; South Bimini, beach drift; FSBC I 18164.—1, 2.3 mm; Fernandez Bay, Cat Island, beach drift; FSBC I 18165.

Remarks.—The holotype of *Athleenia burryi* is a dead shell described from a depth of 400 ft (122 m), but specimens I have seen from near Cape Florida and from beach drift at three Bahamian Islands indicate that the species probably dwells in shallows of the tropical western Atlantic. It is known to occur southward to St. Thomas, Virgin Islands (Mörch, 1875) and Guadeloupe (DeFolin, 1871).

Oceanidainglei, new species

Fig. 4

Description.—Shell small, to about 2.7 mm, glassy, translucent, fading to white when dead. Protoconch of about 4 glassy, transparent, yellow whorls marked by many very fine axial riblets or lines. Postembryonic whorls 4½–5, expanding anteriorly, moderately rounded laterally, terminating abruptly posteriorly; anterior parts of spiral whorls seen through overlapping posterior portions of subsequent whorls as single, posterior spiral lines; each whorl marked by single axial growth line; penultimate whorl elongate, merging smoothly with base. Aperture tear-shaped, rounded, expanded anteriorly, constricted posteriorly; outer lip thin, simple, rounded; inner lip



Figs. 1-4. Western Atlantic *Oceanida*. 1, Original illustration of *Oceanida graduata*, after DeFolin (1871: fig. 6); 2, *Spiroclimax scalaris* [= *O. graduata*], after Thiele (1929: fig. 240); 3, *O. graduata*, 2.8 mm, from off Cape Florida, FSBC I 18166; 4, *Oceanida inglei*, n. sp., holotype, 2.7 mm, from off Hutchinson Island, Florida, USNM 771864. All 20 \times .

slightly elevated anteriorly, forming narrow pseudoumbilicus at intersection with base.

Holotype.—Length 2.7 mm; off Hutchinson Island, St. Lucie County, Florida, 9.7 m depth; USNM 771864.

Paratypes.—FLORIDA: 1, 1.9 mm; Florida Middle Ground in north-eastern Gulf of Mexico, 28°38.1'N, 84°16.3'W, 28.6 m; FSBC I 18163.—3, 2.4, 2.6 mm, fragment; Hourglass Station A, 27°35'N, 82°50'W, off Egmont Key, Pinellas County, 6 m; FSBC I 11747.—1, 2.6 mm; off Hutchinson Island, 11.3 m; FSBC I 11746.—1, 2.7 mm; off Hutchinson Island, 11.0 m; FSBC I 11745.—1, 2.4 mm; off Hutchinson Island, 10.4 m; USNM 771865.—1, 2.7 mm; same data; MCZ 288503.—1, 2.6 mm; off Hutchinson Island, 10.7 m; BMNH 197813.—1, 2.2 mm; off St. Augustine, St. Johns County, 38 m; DMNH 121798.—NORTH CAROLINA: 1, 2.1 mm; 12 mi east of Frying Pan Shoal, 22 m; USNM 82989.

Etymology.—The species is named for Robert M. Ingle, former Director of the Florida Department of Natural Resources Marine Research Laboratory, who authorized and encouraged the Hutchinson Island faunal study.

Remarks.—*Oceanida inglei* resembles *O. graduata* in size, embryonic sculpture, shell surface texture, and general outline, but lacks the sharp,

posterior shoulder angulations characteristic of the latter species. In addition, the aperture of *O.inglei* is slightly more constricted anteriorly than is that of its congener. The species are otherwise nearly identical.

Most specimens of the new species were collected from coastal areas of east and west Florida, and were accompanied by fauna of warm temperate, rather than tropical, affinity. The only apparently tropical association yet noted for the species is at the Florida Middle Ground, where Caribbean species predominate (Lyons, 1976; Turgeon and Lyons, 1978).

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